

## CLAIMS

1. A fixing apparatus comprising:

a rotating heating element that heat-fixes an unfixed image on a recording medium;

5 a heating section that heats the rotating heating element;

a power supply that supplies power to the heating section; and

a self-diagnosis section that issues a directive  
10 for heating when a condition for not heating the rotating heating element has been met, and confirms that the rotating heating element is not heated.

2. The fixing apparatus according to claim 1, wherein  
15 the power supply has:

an inverter circuit that supplies a high-frequency alternating current to the heating section; and

an oscillation stop circuit that stops oscillation of the inverter circuit when the rotating heating element  
20 stops or has a rotation speed less than or equal to a threshold value.

3. The fixing apparatus according to claim 2, further comprising:

25 a signal generation section that outputs a phase signal corresponding to a rotation speed of the rotating heating element; and

a rotation detection section that is provided independently of a processor, and detects from the phase signal that the rotating heating element has stopped rotating or has a rotation speed less than or equal to  
5 a threshold value.

4. The fixing apparatus according to claim 1, wherein the power supply has:

an inverter circuit that supplies a high-frequency  
10 alternating current to the heating section; and

a power-supply-side processor that controls oscillation of the inverter circuit in accordance with a control signal supplied from a processor, and when the rotating heating element stops or has a rotation speed  
15 less than or equal to a threshold value, stops oscillation of the inverter circuit without regard to the control signal.

5. The fixing apparatus according to claim 4, further  
20 comprising a signal generation section that outputs a phase signal corresponding to a rotation speed of the rotating heating element;

wherein the power-supply-side processor detects from the phase signal that the rotating heating element  
25 has stopped rotating or has a rotation speed less than or equal to a threshold value.

6. The fixing apparatus according to claim 1, wherein the self-diagnosis section executes self-diagnosis each time power is turned on and/or restoration is performed from a sleep state, and/or at regular intervals during  
5 standby.

7. The fixing apparatus according to claim 1, wherein the power supply has:

an inverter circuit that supplies a high-frequency  
10 alternating current to the heating section; and

a power suppression circuit that controls oscillation of the inverter circuit in accordance with a power control signal supplied from a processor, and when the rotating heating element stops or has a rotation  
15 speed less than or equal to a threshold value, suppresses oscillation of the inverter circuit without regard to the power control signal.

8. An image forming apparatus comprising:

20 an image forming section that forms an unfixed image on a recording medium; and

a fixing apparatus that heat-fixes by means of a rotating heating element an unfixed image formed on the recording medium by the image forming section;

25 wherein the fixing apparatus according to claim 1 is used as the fixing apparatus.